* Mock Exams ** Year 10 ASSESSMENT 2 - WEEK 25A (W/B: 8th Mar) ** Mock Exams *

Class	Tier	Marks	Mins	Specification content		
Physics Sets 1-2	Core and Extended and Extended	60 30	60 30	**Revise all of the CORE and EXTENDED content for the following specification topics you have already studied:**	**5 Solids, liquids and gases**	**5 Solids, liquids and gases**
					(b) Density and pressure	**(c) Change of state**
					5.3 know and use the relationship between density, mass and volume	5.8P explain why heating a system will change the energy stored within the system and raise its temperature or produce changes of state
					5.4 practical: investigate density using direct measurements of mass and volume	5.9P describe the changes that occur when a solid melts to form a liquid, and when a liquid evaporates or boils to form a gas
				1 Forces and motion (b) Movement and position (c) Forces, movement, shape and momentum **2 Electricity** (a) Units (b) Mains electricity (c) Energy and voltage in circuits (d) Electric charge **3 Waves** (b) Properties of waves (c) The electromagnetic spectrum (d) Light and sound **4 Energy resources and energy transfers** (b) Energy transfers (c) Work and power (d) Energy resources and electricity generation	5.5 know and use the relationship between pressure, force and area:	5.10P describe the arrangement and motion of particles in solids, liquids and gases
					5.6 understand how the pressure at a point in a gas or liquid at rest acts equally in all directions	5.11P practical: obtain a temperature–time graph to show the constant temperature during a change of state
					5.7 know and use the relationship for pressure difference: pressure difference = height × density × gravitational field strength	5.12P know that specific heat capacity is the energy required to change the temperature of an object by one degree Celsius per kilogram of mass (J/kg °C)
						5.13P use the equation: change in thermal energy = mass × specific heat capacity × change in temperature ΔQ = m × c × ΔT
						5.14P practical: investigate the specific heat capacity of materials including water and some solids
						5 Solids, liquids and gases
						(d) Ideal gas molecules
						5.15 explain how molecules in a gas have random motion and that they exert a force and hence a pressure on the walls of a container
						5.16 understand why there is an absolute zero of temperature which is −273 °C
						5.17 describe the Kelvin scale of temperature and be able to convert between the Kelvin and Celsius scales
						5.18 understand why an increase in temperature results in an increase in the average speed of gas molecules
						5.19 know that the Kelvin temperature of a gas is proportional to the average kinetic energy of its molecules
						5.20 explain, for a fixed amount of gas, the qualitative relationship between: • pressure and volume at constant temperature • pressure and Kelvin temperature at constant volume.
						5.21 use the relationship between the pressure and Kelvin temperature of a fixed mass of gas at constant volume
						5.22 use the relationship between the pressure and volume of a fixed mass of gas at constant temperature
Physics Set 3	Core	60	60	**Revise all of the CORE content ONLY for the following specification topics you have already studied:**	**5 Solids, liquids and gases**	**5 Solids, liquids and gases**
					(d) Ideal gas molecules	**(b) Density and pressure**
					5.15 explain how molecules in a gas have random motion and that they exert a force and hence a pressure on the walls of a container	5.3 know and use the relationship between density, mass and volume
					5.16 understand why there is an absolute zero of temperature which is −273 °C	5.4 practical: investigate density using direct measurements of mass and volume
				1 Forces and motion (b) Movement and position (c) Forces, movement, shape and momentum **2 Electricity** (a) Units (b) Mains electricity (c) Energy and voltage in circuits (d) Electric charge **3 Waves** (b) Properties of waves (c) The electromagnetic spectrum (d) Light and sound **4 Energy resources and energy transfers** (b) Energy transfers (c) Work and power (d) Energy resources and electricity generation	5.17 describe the Kelvin scale of temperature and be able to convert between the Kelvin and Celsius scales	5.5 know and use the relationship between pressure, force and area:
					5.18 understand why an increase in temperature results in an increase in the average speed of gas molecules	5.6 understand how the pressure at a point in a gas or liquid at rest acts equally in all directions
					5.19 know that the Kelvin temperature of a gas is proportional to the average kinetic energy of its molecules	5.7 know and use the relationship for pressure difference: pressure difference = height × density × gravitational field strength
					5.20 explain, for a fixed amount of gas, the qualitative relationship between: • pressure and volume at constant temperature • pressure and Kelvin temperature at constant volume.	
					5.21 use the relationship between the pressure and Kelvin temperature of a fixed mass of gas at constant volume	
					5.22 use the relationship between the pressure and volume of a fixed mass of gas at constant temperature	
Physics Set 4	Core	40	60	**Revise all of the content for the following specification topics you have already studied:**	**5 Solids, liquids and gases**	**5 Solids, liquids and gases**
					(b) Density and pressure	**(d) Ideal gas molecules**
					5.5 know and use the relationship between pressure, force and area:	5.15 explain how molecules in a gas have random motion and that they exert a force and hence a pressure on the walls of a container
					5.6 understand how the pressure at a point in a gas or liquid at rest acts equally in all directions	5.16 understand why there is an absolute zero of temperature which is −273 °C
				1 Forces and motion (b) Movement and position (c) Forces, movement, shape and momentum **2 Electricity** (a) Units (b) Mains electricity (c) Energy and voltage in circuits (d) Electric charge **3 Waves** (b) Properties of waves (c) The electromagnetic spectrum (d) Light and sound **4 Energy resources and energy transfers** (b) Energy transfers (c) Work and power (d) Energy resources and electricity generation		5.17 describe the Kelvin scale of temperature and be able to convert between the Kelvin and Celsius scales
						5.18 understand why an increase in temperature results in an increase in the average speed of gas molecules
						5.19 know that the Kelvin temperature of a gas is proportional to the average kinetic energy of its molecules
						5.20 explain, for a fixed amount of gas, the qualitative relationship between: • pressure and volume at constant temperature • pressure and Kelvin temperature at constant volume.
Website (Revision)	https://www.physicsandmathstutor.com/physics-revision/igcse-edexcel/					
Website (Past Exam Papers)	Paper 1 (CORE):	https://www.physicsandmathstutor.com/past-papers/gcse-physics/edexcel-igcse-paper-1/				
	Paper 2 (EXTENDED):	https://www.physicsandmathstutor.com/past-papers/gcse-physics/edexcel-igcse-paper-2/				